

CLAIMS

What is claimed is:

1 1. An assembly for generating and emitting a continuous stream of
2 bubbles formed from a supply of bubble liquid, said assembly comprising:
3 a reservoir for receiving and retaining a supply of bubble liquid;
4 a bubbler conduit for directing a first airstream into the supply of bubble
5 liquid in the reservoir to create from the bubble liquid a froth of bubble liquid in a
6 chamber defined in fluid communication with the reservoir;
7 an exit outlet in fluid communication with said chamber and having an
8 outer periphery;
9 an updraft chimney disposed in fluid communication with the chamber for
10 directing a second airstream against the froth to drive the froth into the exit outlet so that
11 a film of the driven bubble liquid froth becomes attached to the exit outlet and the
12 second airstream directed against the attached film creates from the attached film and
13 inflates a bubble attached to the exit outlet; and
14 a lift passageway defined proximate the exit outlet for directing a third
15 airstream about the exit outlet periphery to facilitate detachment from the exit outlet of
16 the created and inflated bubble attached to the exit outlet and displacement of the
17 detached bubble away from the exit outlet.

1 2. An assembly in accordance with claim 1, wherein the exit outlet
2 comprises an elongated exit chimney.

1 3. An assembly in accordance with claim 2, wherein the lift
2 passageway is defined by a lift chimney disposed in spaced relation about the exit
3 chimney periphery.

1 4. An assembly in accordance with claim 1, wherein the reservoir is
2 contained within said chamber.

1 5. An assembly in accordance with claim 1, wherein said updraft
2 chimney is disposed in substantial alignment with said exit outlet for directing the
3 second airstream toward and into said exit outlet in a first direction, and wherein said lift
4 passageway is oriented for directing the third airstream in said first direction.

1 6. An assembly in accordance with claim 1, further comprising a
2 distribution chamber in fluid communication with the bubbler conduit, the updraft
3 chimney and the lift passageway for receiving a primary airstream and directing a first
4 portion of the received primary airstream to the bubbler conduit to define the first
5 airstream, directing a second portion of the received primary airstream to the updraft
6 chimney to define the second airstream, and directing a third portion of the received
7 primary airstream to the lift passageway to define the third airstream.

1 7. An assembly in accordance with claim 6, further comprising a
2 primary airstream generator in fluid communication with the distribution chamber for
3 operatively generating the primary airstream.

1 8. An assembly in accordance with claim 1, further comprising an
2 airstream generator in fluid communication with the bubbler conduit, the updraft
3 chimney and the lift passageway for operatively generating the first, second and third
4 airstreams.

1 9. A method of generating and emitting a first of a continuous stream
2 of bubbles formed from a supply of bubble liquid, comprising the steps of:

3 directing a first airstream into a supply of the bubble liquid to create a froth
4 of bubble liquid in a chamber;

5 directing a second airstream against the froth in the chamber to drive the
6 froth from the chamber through an exit outlet in a first direction so that a film of the
7 driven bubble liquid froth becomes attached to the exit outlet and the second airstream
8 directed against the attached film creates from the attached film and inflates a bubble
9 attached to the exit outlet; and

10 directing a third airstream in the first direction and peripherally about the
11 exit outlet to facilitate detachment from the exit chimney of the created and inflated
12 bubble attached to the exit outlet and displacement of the detached bubble in the first
13 direction away from the exit outlet.

1 10. A method in accordance with claim 9, further comprising the steps
2 of:

3 receiving a primary airstream; and

4 redistributing predetermined portions of the primary airstream to create the
5 first airstream, the second airstream and the third airstream.

1 11. A method in accordance with claim 9, further comprising the steps
2 of:

3 generating a primary airstream; and
4 redistributing predetermined portions of the primary airstream to create the
5 first airstream, the second airstream and the third airstream.

1 12. Apparatus for generating and emitting a continuous stream of
2 bubbles formed from a supply of bubble liquid, said apparatus comprising:

3 a housing;
4 a reservoir in said housing for receiving a supply of bubble liquid;
5 a froth chamber defined in said housing in fluid communication with said
6 reservoir;

7 a distribution chamber defined in said housing for receiving a primary
8 airstream and for defining from the primary airstream a first air substream, a second air
9 substream and a third air substream;

10 a bubbler passage defined in said housing in fluid communication with
11 said distribution chamber for receiving the first air substream from the distribution
12 chamber and configured for directing the first air substream into the bubble liquid in the
13 reservoir to create a froth of bubble liquid in said froth chamber;

14 an exit outlet defined in said housing in fluid communication with said froth
15 chamber, said exit outlet having an outer periphery;

16 an updraft passage defined in said housing in fluid communication with
17 said distribution chamber for receiving the second air substream from the distribution
18 chamber and configured for directing the second air substream against the froth in said
19 froth chamber so as to drive the froth into the exit outlet such that a film of the second
20 air substream driven bubble liquid froth becomes attached to the exit outlet and the
21 second air substream directed against the attached film creates from the attached film
22 and inflates a bubble attached to the exit outlet; and

23 a lift passageway defined in the housing proximate the exit outlet for
24 directing the third air substream outwardly from the housing about the exit outlet
25 periphery to facilitate detachment from the exit outlet of the created and inflated bubble
26 attached to the exit outlet and displacement of the detached bubble away from the exit
27 outlet and housing.

1 13. An apparatus in accordance with claim 12, wherein said lift
2 passageway is defined in concentrically spaced relation about the exit outlet.

1 14. An apparatus in accordance with claim 12, further comprising an
2 airstream generator in said housing and operable for creating the primary airstream for
3 receipt by said distribution chamber.

1 15. An apparatus in accordance with claim 13, wherein said housing
2 comprises a handgrip portion graspable by a user, said apparatus further comprising a

3 user-manipulatable actuator on said handgrip portion and connected to the airstream
4 generator for selective user operation of the airstream generator to create the primary
5 airstream and generate and emit from said apparatus a continuous stream of bubbles.

1 16. Apparatus for generating and emitting a continuous stream of
2 bubbles formed from a supply of bubble liquid, said apparatus comprising:

3 a housing;

4 a froth chamber defined in said housing;

5 a reservoir in said froth chamber for receiving a supply of bubble liquid;

6 an airstream generator in said housing operable for generating a primary
7 airstream;

8 a distribution chamber defined in said housing for receiving the primary
9 airstream from said airstream generator and for redistributing the primary airstream as a
10 first air substream, a second air substream and a third air substream;

11 a bubbler conduit defined in said housing in fluid communication with said
12 distribution chamber for receiving the first air substream from the distribution chamber
13 and configured for directing the first air substream into the bubble liquid in the reservoir
14 so that the first air substream bubbles through the bubble liquid in the reservoir to create
15 a froth of bubble liquid in said froth chamber;

16 an exit conduit defined in said housing in fluid communication with said
17 froth chamber, said exit conduit having an outer periphery;

18 an updraft chimney in said froth chamber in fluid communication with said
19 distribution chamber for receiving the second air substream from the distribution

20 chamber and configured for directing the second air substream against the froth in said
21 froth chamber so as to drive the froth into the exit conduit such that a film of the second
22 air substream driven bubble liquid froth becomes attached to the exit conduit and the
23 second air substream directed against the attached film creates from the attached film
24 and inflates a bubble attached to the exit conduit; and

25 a lift conduit concentrically spaced about the exit conduit for directing the
26 third air substream outwardly from the housing about the exit conduit periphery to
27 facilitate detachment from the exit conduit of the created and inflated bubble attached to
28 the exit conduit and displacement of the detached bubble away from the exit conduit
29 and housing.

1 17. Apparatus in accordance with claim 16, further comprising a feed
2 tube in said housing for delivering the primary airstream operatively generated by the
3 airstream generator to said distribution chamber.

1 18. Apparatus in accordance with claim 17, wherein said bubbler
2 conduit further comprises a passageway concentrically defined about an outer periphery
3 of said feed tube for delivering the first air substream from the distribution chamber into
4 the bubble liquid in said reservoir.

1 19. Apparatus in accordance with claim 16, wherein said housing
2 comprises a handgrip portion graspable by a user, said apparatus further comprising a
3 user-manipulatable actuator on said handgrip portion and connected to the airstream
4 generator for selective user operation of the airstream generator to generate the primary

5 airstream and thereby operate the apparatus to generate and emit a continuous stream
6 of bubbles.

1 20. Apparatus in accordance with claim 16, wherein said updraft
2 chimney is disposed in substantial alignment with said exit conduit for directing the
3 second air substream toward and into said exit conduit in a first direction, and wherein
4 said lift conduit is oriented for directing the third air substream in said first direction.